

**Lab Development for the New Course MV-4030**  
**Modeling and Simulation in Ocean Environment**



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# Talk Outline

## (1) Outline of the New Course (MV4030)

### Modeling & Simulation in Ocean Environment

- [http://www.oc.nps.navy.mil/~chu/course\\_dir/mv4030.dir/index.html](http://www.oc.nps.navy.mil/~chu/course_dir/mv4030.dir/index.html)

## (2) Laboratory Development

- <http://www.oc.nps.navy.mil/mv4030>

# MOVES Needs Ocean Environments

- (1) The difference between VEs and real-time ocean environments can distort the physical reality.
- (2) The design of effective VE system depends on an understanding of physical environments and their impact on human behavior and M&S.

# Objectives of MV4030

- (1) Basic physics of the ocean environments
- (2) Visualization of ocean from satellite
- (3) Visualization of ocean from Navy METOC model output
- (4) METOC information flow in M&S
- (5) Impacts of environment on human behavior
- (6) Impacts of environment on M&S
- (7) Implement of environmental models into real physically-based modeling